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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/762,105	04/23/2001	Pal Maliga	RUT 00-0010	8371

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EXAMINER	
KUBELIK, ANNE R	

ART UNIT	PAPER NUMBER
1638	

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	09/762,105	MALIGA ET AL.	
	Examiner	Art Unit	
	Anne R. Kubelik	1638	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 07 September 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☐ The period for reply expires _____months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☒ A Notice of Appeal was filed on *9/7/04*. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☒ The proposed amendment(s) will not be entered because:

   (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ they raise the issue of new matter (see Note below);

   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: *THE AMENDMENT IS NON-COMPLIANT. See Continuation Sheet.*

3. ☐ Applicant's reply has overcome the following rejection(s): 112, 2nd would have been overcome.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *See Continuation Sheet.*

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☒ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: *4-5*.

   Claim(s) objected to: *1,2 and 8-17*.

   Claim(s) rejected: _____.

   Claim(s) withdrawn from consideration: _____.

8. ☒ The drawing correction filed on 9/7/04 is a)☒ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10. ☒ Other: *The petition for acceptance of color drawings is accepted*

Continuation of 2. NOTE: The amendments to the claims do not conform to the Revised Amendment Practice of 37 CFR 1.121. Specifically, the text of cancelled claims must not be included in the listing of the claims. Furthermore, the version of claims 1 and 4 presented in the response do not correspond to the versions of the claims presented in the response filed 8 December 2003 (See lines 6 and 1, respectively).

Continuation of 5. does NOT place the application in condition for allowance because:
112, 1st, deposit, claims 15-17: Applicant urges that the making of plasmids pMSK45 and pMSK48 is described on pg 79-85 and provides the full-length sequence for pMSK45 and the gfp/aadA fusion gene. This is not found persuasive. First, the specification does not teach the full-length sequence for pMSK45, only pMSK49 and pMSH35. Second, the sequence of the gfp/aadA fusion gene, required for both pMSK45 and pMSK48, is not taught. gfp was taken as a EcoRI-HindIII fragment from plasmid CD3-326F (pg 80, lines 29-30); however in the making of CD3-326F unpredictability in sequence was introduced - first in blunting the XbaI site (pg 78, lines 15-16), which can nibble away bases, and second in the construction of the HindIII site, which is only vaguely described on pg 78, lines 31-33. Thus, the construction of plasmids pMSK45 and pMSK48 is not described in the specification. The construction of plasmid pHK38(A) is also not described. Thus, a deposit of these plasmids is required.
112 1st, written description, claims 1-2 and 8-14: Applicant that an downstream box as described in the specification must also possess the function of enhancing translation; thus the assertion that almost any sequence will be encompassed by the claim is unfounded as only sequences with sufficient homology will function. Applicant also urges that extensive structural information is provided, as are assays for determining functionality, exemplary bacterial downstream boxes, and methods of determining plastid downstream boxes, on pg 23-24 and Figures 1-2, and in Figure 3 numerous exemplary downstream box containing 5' regulatory regions. This is not found persuasive. The guidance on the cited pages merely indicates that a downstream box is merely any sequence that can basepair with the 26 base long anti-downstream box region by as few as 5 exact matches and 3 weak G-U matches. The specification does not describe the necessary and sufficient structural features for indicating which of this multitude of sequences are functional.

112 1st, enablement, claims 1-2 and 8-14: Applicant urges that because the structure and function of plastid downstream boxes is described, only routine experimentation would be required, and that routine techniques are required to use them. Applicant urges that the specification teaches how to make the sequence elements. This is not found persuasive. The specification does not teach the structural motifs that distinguish functional sequences that can basepair with the 26 base long anti-downstream box region by as few as 5 exact matches and 3 weak G-U matches from nonfunctional ones. Thus, undue trial and error experimentation would be required to sort through the huge number of sequences encompassed by the claims.

102(b) over Svab et al: Applicant urges that the claim recites that the downstream box is 5' to the coding region, and thus cannot occur within the coding region. This is not found persuasive, as the coding region is simply whatever comes after the 5' region - note the claim does not say 5' to the start codon. However, even if it did the rejection would stand, as upstream of the aadA start codon there are two regions with at least 5 exact matches and 3 weak G-U matches to the plastid anti-downstream box; these are located at bases 2716-2830 and 2826-2840.

102(e) over US 5,877,402: Applicant's arguments and the reasons they are not persuasive are as above.

102(e) over US 6,271,444: Applicant urges that the constructs do not comprise a chimeric 5' regulatory region comprising a downstream box regulating the production of a heterologous protein. This is not found persuasive. First, applicant does not explain this assertion. Second, this is not found persuasive for the reasons above.

ANNE KUBELIK
PATENT EXAMINER